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(71) Applicant: **TOYOTA CENTRAL RES & DEV
LAB INC**

(72) Inventor: **UESUGI TSUTOMU
KIGAMI MASAHIITO**

(54) VERTICAL SEMICONDUCTOR DEVICE

(57) Abstract:

PROBLEM TO BE SOLVED: To increase a withhold voltage of a vertical MOS field effect transistor 1.

SOLUTION: This vertical MOS field effect transistor 1 has a super junction structure 13. The super junction structure 13 is a structure wherein first conductive semiconductor regions and second conductive semiconductor regions are arranged alternately in a direction vertical to a current flow in a drift region. An insulating region 35 is positioned outside a silicon single crystal region (P-type silicon single crystal region 15) located at an end of the super junction structure 13. The insulating region 35 is formed by burying a silicon oxide film in a trench 33.

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